UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

ThinkOptics, Inc.,

Plaintiff,

vs.

Nintendo of America Inc., *et al.*,

Defendants.

No. 6:11-cv-00455-LED

[Jury trial demanded]

Statement of Undisputed Material Facts Nintendo's Motion for Summary Judgment of Invalidity

1. ThinkOptics asserts that Nintendo infringes, *inter alia*, claims 1 and 23 of the U.S. Patent No. 7,852,317 ("the '317 patent," Ex. 1), ; and claims 1, 17, and 23 of the U.S. Patent No. 7,864,159 ("the '159 patent," Ex. 2) (collectively, "asserted patents" or "asserted claims"). *See* 2013-9-20 Wright email (Ex. 3[1]).

2. The asserted patents are generally directed "to a handheld vision based absolute pointing system" for controlling or interacting with electronic equipment such as a computer. *See* '317 patent at 1:15–16 (Ex. 1); '159 patent at 1:14–15 (Ex. 2).

3. The asserted patents disclose a handheld device with a camera in it. The camera takes a picture of infrared-light markers placed on or near a display. Images from the infrared-light markers appear on a pixelated sensor inside the camera in the handheld pointing device. *See*, *e.g.*, '317 patent at 4:36–5:26; Figure 5a (Ex. 1); '159 patent at 4:38–5:28; Figure 5a (Ex. 2).

4. The asserted patents disclose that the handheld device uses the images' locations in the picture to determine where the device is pointing. *See* '317 patent at 5:13–26 (Ex. 1); '159 patent at 5:15–28 (Ex. 2).

5. The asserted patents disclose that the handheld device includes a processor. The processor processes data associated with the infrared-marker images to determine the images' coordinates on the pixelated sensor. Using these coordinates, the system can determine information relating to the position and orientation of the handheld device, including the position on the display

[1] All exhibits referred to herein are attach to the Hamilton declaration in support of Nintendo's motion for summary judgment of invalidity ("Hamilton. Decl.") filed herewith.

where the handheld device is pointing. *See*, *e.g.*, '317 patent at 4:36–5:12; Figure 5a (Ex. 1); '159 patent at 2:11–22; 4:38–5:14; Figure 5a (Ex. 2).

6. Yamamoto discloses an optical pointing system using handheld device with a camera in it. The camera takes a picture of infrared-light markers placed on or near a display. Images from the infrared-light markers appear on a pixelated sensor inside the camera in the handheld pointing device. The handheld device uses the images' locations in the picture to determine where the device is pointing. *See* Yamamoto at Fig. 5 and accompanying text (Ex. 9); claim charts, (Exs. 4, 5).

7. The asserted patents disclose that the handheld device includes a processor. The processor processes data associated with the infrared-marker images to determine the images' coordinates on the pixelated sensor. Using these coordinates, the system can determine information relating to the position and orientation of the handheld device, including the position on the display where the handheld device is pointing. *See*, *e.g.*, '317 patent at 4:36–5:12; Figure 5a (Ex. 1); '159 patent at 2:11–22; 4:38–5:14; Figure 5a (Ex. 2).

8. The asserted claims require the handheld device to have a processor that processes the image data using the following three specific processing steps:

> [1] determining an intensity value for each [pixel] of the pixelated sensor, the intensity value attaining one of three or more quantized intensity values;
>
> [2] identifying pixels which have an intensity value above a specified threshold;

> [3] using only those pixels which have an intensity value above the specified threshold, generating the coordinate data based on both the intensity value for each of the pixels and the location of each of the pixels on the pixelated sensor . . . .

See, *e.g.*, '317 patent, claims 1 and 23 (Ex. 1); '159 patent, claims 1, 17, and 23 (Ex. 2).

9. Despite slight differences in wording, the three processing steps are the same in all the asserted claims. *See* Zeidman Tr. at 38:1–8; 355:5–18 (Ex. 6).

10. The patent examiner allowed the asserted claims, provided that they included an examiner's amendment. The examiner's amendment added the three processing steps. The examiner determined that the three specific processing steps avoided the prior art. She stated,

> None of the prior art neither anticipates nor renders obvious the independent claim limitations:
>
> wherein processing the image data further comprises:
>
> determining an intensity value for each of the pixelated sensor, the intensity value attaining one of three or more quantized intensity values;
>
> identifying pixels which have an intensity value above a specified threshold;
>
> using only those pixels which have an intensity value above the specified threshold, generating the coordinate data based on both the intensity value for each of the pixels and the location of each of the pixels on the pixelated sensor;

See '317 patent file history, 2010-08-12 Notice of Allowability at 3 (Ex. 7); '159 patent file history, 2010-08-24 Notice of Allowability at 3 (Ex. 8).

11. Japanese Patent Application Publication No. H10-228349 ("Yamamoto"), was published August 25, 1998, and is thus prior art under 35 U.S.C. § 102(b) to the asserted patents. (Ex. 9).

12. In responding to an interrogatory asking for ThinkOptics's bases why the asserted claims were not anticipated or obvious over Yamamoto, ThinkOptics provided several claim charts identifying which limitations it contends are not disclosed by Yamamoto. For claims 1 and 23 of the '317 patent and claims 1, 17, and 23 of the '159 patent, the only limitations identified by ThinkOptics not being disclosed by Yamamoto are the use of a processor to perform the three claimed processing steps or limitations for which the processor and three processing steps provide antecedent basis. *See* Plaintiff ThinkOptics, Inc.'s Supplemental Objections and Responses to Defendant Nintendo Co., Ltd.'s First Set of Interrogatories, served Dec. 13, 2013, Interrogatory No. 1 and accompanying claim charts Appendices T–U (Ex. 10). *See also* Zeidman Tr., Ex. 204 (Ex. 6).

13. J.C. Trinder, *Precision of Digital Target Location* ("Trinder"), was published in Photogrammetric Engineering and Remote Sensing, Vol. 55, No. 6, at pages 883-86 on June 1989 and is thus prior art under 35 U.S.C. § 102(b) to the asserted patents. Trinder (Ex. 11).

14. Trinder discloses a system and method to improve digital pointing by making it more precise as follows: "Extensive investigations have been carried out on digital pointing to circular targets to determine the influence of image

quality, pixel size in the image, quantization level, and noise on the precision of pointing." Trinder at Abstract (Ex. 11).

15. ThinkOptics's expert, Mr. Zeidman, testified that the method Trinder disclosed to improve digital pointing is used to calculate the location of an image on a pixelated sensor, stating that "determin[e] the location of . . . of an image. I guess, more precisely, of a circular target location on a digital image . . . ." Zeidman Tr. at 185:10–13 (Ex. 6).

16. ThinkOptics's expert, Mr. Zeidman, testified that Trinder discloses the use of a processor, namely, logic circuitry designed to execute program code instructions, to determine the location of a marker in a pixelated image. Zeidman Tr. at 35:7–14; 36:14–19; 185:10–13 (Ex. 6).

17. ThinkOptics expert, Mr. Zeidman, testified that Trinder discloses the first claimed processing step of "determining an intensity value for each of the pixel -- each of the pixelated sensor, the intensity value attaining one of three or more quantized intensity values." Zeidman Tr. at 35:7–14; 36:14–19; 185:10–13 (Ex. 6).

18. ThinkOptics expert, Mr. Zeidman, testified that Trinder discloses the second claimed processing step of "identifying pixels which have an intensity value above a specified threshold." Zeidman Tr. at 35:19–36:1; 190:3–12 (Ex. 6).

19. ThinkOptics expert, Mr. Zeidman, testified that Trinder discloses the third claimed processing step of "using only those pixels which have an intensity value above the specified threshold, generating coordinate data based on both

the intensity value for each of the pixels and the location of each of the pixels on the pixelated sensor." Zeidman Tr. at 36:2–13; 190:13–17 (Ex. 6).

20. ThinkOptics expert, Mr. Zeidman, testified that Trinder discloses the second step — thresholding — and the third step —determining coordinate data —before disclosing the first step — quantizing, and so, ThinkOptics claims that Yamamoto and Trinder do not yield the claimed invention. Zeidman Tr. at 197:12–198:11 (Ex. 6).

21. Trinder discloses that "[f]ollowing quantization, the precision of target location was determined. . . ." Trinder at 883 (Ex. 11, NIN_TO_0070517).

22. Trinder discloses that the precision of the center of the target as determined by the thresholding and determining coordinate data steps is directly affected by the level of quantization, stating that "[t]here is a general deterioration in precision [of target location] as quantization levels decrease. . . ." Trinder at 884 (Ex. 11, NIN_TO_0070518).

23. ThinkOptics's expert, Mr. Zeidman, asserts that one of ordinary skill in the art at the time of the filing date of the asserted patents, July 21, 2005, would have "a Bachelor's degree in electrical engineering with at least two years of experience designing controllers or a Master's degree in electrical engineering." Zeidman Rebuttal Invalidity Report at ¶ 80 (Ex. 12).

24. ThinkOptics's expert, Mr. Zeidman, testified that one skilled in the art would have looked to known methods in the art for methods of determining a location on a sensor, stating that "one of ordinary skill in the art would have used

other references to find various techniques to determine the location of a marker on a sensor." Zeidman Tr. at 108:9–18 (Ex. 6).

25. ThinkOptics's expert, Mr. Zeidman, testified that Yamamoto and Trinder are in the field of art of the asserted patents. Zeidman Tr. at 104:3–6 (Ex. 6).

26. Trinder discloses how using the three claimed processing steps to identify the location of circular target improves the precision and accuracy of the determined location in digital pointing applications, stating that "[e]xtensive investigations have been carried out on the digital pointing to circular targets to determine the influence of image quality, pixel size in the image, quantization level, and noise on the precision of pointing." Trinder at Abstract (Ex. 11, NIN_TO_0070517).

27. In the reexaminations, the USPTO determined that the asserted claims are not patentable because they are anticipated or obvious in light of the prior art, including Yamamoto. *See, e.g., Inter Partes* Reexamination No. 95/002,114, 2013-08-16 Action Closing Prosecution at 5 (Ex. 13); *Inter Partes* Reexamination No. 95/002,118, 2013-10-04 Non-Final Rejection at 5 (Ex. 14).

28. Claim charts showing the undisputed disclosure by Yamamoto and Trinder of the limitations of claims 1 and 23 of the '317 patent is provided in Ex. 4.

29. Claim charts showing the disclosure by Yamamoto and Trinder of the limitations of claims 1, 17, and 23 of the '359 patent are provided in Ex. 5.

February 24, 2014

By: */s/ Grant Kinsel*
Grant Kinsel, Bar No. 172407
email: gkinsel@perkinscoie.com
(Lead Attorney)

Perkins Coie LLP
1888 Century Park E., Suite 1700
Los Angeles, CA 90067
Tel: 310.788.3215
Fax: 310.788.3399

Clyde M. Siebman
Siebman, Burg, Philips & Smith, L.L.P.
Federal Courthouse Square
300 N. Travis Street
Sherman, TX 75090
Tel: 903.870.0070
Fax: 903.870-0066
email: Siebman@siebman.com

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document on counsel who have appeared in this case by ECF on the February 24, 2014.

/s/ *Grant Kinsel*
Grant Kinsel